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**OPEN MEETING** 

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TO:

THE COMMISSION

FROM:

Ernest G. Johnson, Director, Utilities Division

for

DATE:

December 6, 2002

RE:

IN THE MATTER OF COMMISSION'S BIENNIAL ASSESSMENT, PURSUANT TO A.R.S. §40-360.02.G, OF THE ADEQUACY OF EXISTING AND PLANNED TRANSMISSION FACILITIES TO MEET ARIZONA'S ENERGY NEEDS IN A RELIABLE MANNER. (Docket No. E-00000D-02-0065)

A.R.S. § 40-360.02.A states "Every person contemplating construction of any transmission line within the state during any ten year period shall file a ten year plan with the commission on or before January 31 of each year." A.R.S. §40-360.02.G states "The plans shall be reviewed biennially by the commission and the commission shall issue a written decision regarding the adequacy of the existing and planned transmission facilities in this state to meet the present and future energy needs of this state in a reliable manner."

The Commission's Utilities Division Staff ("Staff") and its consultant, P Plus Corporation ("PPC") have completed the second biennial assessment of Arizona's existing and planned transmission system. Staff held two workshops to gather stakeholders' input. The workshops were held on July 30-31, 2002 and October 18, 2002. Industry input received from the workshops and subsequent written comments and correspondence has been incorporated into the Second Biennial Transmission Assessment 2002-2011 ("Assessment" or "BTA") report. Staff filed its report with Docket Control on December 6, 2002 in compliance with the aforementioned statute requirement. The report was also posted on the Commission website. Staff's report addresses the adequacy and reliability of Arizona's existing and planned transmission system for the period 2002 – 2011 and offers conclusions and recommendations for the Commission's consideration and action.

The transmission assessment documented in Staff's report represents the professional opinion of Staff and its consultant P Plus Corporation ("PPC"). The BTA is not an evaluation of individual transmission provider's facilities or their quality of service. This BTA report does not set Commission policy and does not recommend specific action for any individual Arizona transmission provider. It assesses the adequacy of Arizona's transmission system to reliably meet existing and future energy needs of the state. This transmission assessment will not become official unless and until it is adopted by Commission Decision.

The Commission December 6, 2002 Page 2

Staff's Assessment arrives at the following three key conclusions which are offered for the Commission's consideration:

- > The electric industry in Arizona has been very responsive to concerns raised in Staff's first BTA regarding the adequacy of the existing and planned Arizona transmission system to meet the energy needs of the state in a reliable manner. This conclusion is supported by the following findings:
  - Arizona has received national acclaim for its collaborative transmission planning process which is open to all stakeholders. The planning model is being proposed for a study addressing Arizona and California interstate transmission needs.
  - Some Merchant power plant developers are beginning to propose transmission improvements to resolve transmission barriers to the wholesale market.
  - Transmission providers have agreed to participate in a reliability-must-run ("RMR") study process for each local transmission import constrained area with which they are interconnected.
  - Numerous new transmission projects have been announced and filed with the Commission since its first BTA.
- In general the existing and planned Arizona transmission system meets the load serving requirements of the state in a reliable manner. Several geographic areas do require and have planned transmission construction within the next ten-year period in order to continue serving local load in such a reliable manner. Mohave County was recently identified as a transmission import constrained area and studies have since commenced to determine available solutions. It is the only region for which transmission expansion has not been defined to reliably serve the local load projected for the area.
- > Staff remains concerned about the adequacy of the state's transmission system to reliably support the competitive wholesale market emerging in Arizona. This conclusion is supported by the following findings:
  - Competitive wholesale generators' access to local Arizona markets is limited by local transmission import constraints that results in local RMR generation requirements. (See recommendations 2.a, 3 and 4)
  - Planned Palo Verde transmission system additions fail to accommodate the full output of all new power plants interconnecting at the Palo Verde Hub. Two plant developers (Gila Bend Power Partners and TECO/Panda Gila River) have recently identified new transmission projects to help resolve anticipated curtailments and schedule restrictions. (See recommendation 2.b.)
  - There is very little additional long-term firm transmission capacity available to export or import energy over Arizona's transmission system. Studies to investigate

transmission additions required between Arizona and California are being organized. (See recommendations 2.b and 4.)

• Some new power plants are being interconnected to Arizona's bulk transmission system via a single transmission line or tie rather than continuing Arizona's best engineering practices of multiple lines emanating from power plants. (See recommendation 2.b.)

Concerns outlined by Staff's Assessment are not easily or quickly resolved. The public's best interest warrants effective and decisive remedies. Therefore, Staff offers the following recommendations for Commission consideration and action:

- 1. Continue to support Staff's use of the "Guiding Principles for ACC Staff Determination of Electric System Adequacy and Reliability" to aid in its determination of adequacy and reliability of power plant and transmission line projects.
- 2. Request Staff to commence rule making proceedings to determine how:
  - a. Utility distribution companies ("UDCs") should ensure sufficient transmission import capacity to reliably serve all loads in their service areas without limiting access to more economical or less polluting remote generation; and
  - b. New power plant developers should demonstrate sufficient transmission capacity exists to reliably and economically deliver the full output of their respective plants without use of remedial action schemes for single contingency (N-1) outages or displacing a priori generation at the interconnection.
- 3. Encourage transmission providers to continue to investigate and study, in a collaborative fashion, local area import constraints in accordance with the RMR Study Plan outlined in Section 7.2 of Staff's report.
- 4. Continue to encourage collaborative study activities between transmission providers and merchant plant developers for the purpose of:
  - a. Ensuring consumer benefits of generation additions, and cost-effective transmission enhancements and interconnections; and
  - b. Facilitating restructuring of the electric utility industry to reliably serve Arizona consumers at just and reasonable rates via a competitive wholesale market.

In conclusion, Staff recommends that the Commission adopt Staff's Second Biennial Transmission Assessment 2002-2011 as set forth in Staff's proposed order.

## BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL CHAIRMAN JIM IRVIN COMMISSIONER MARC SPITZER COMMISSIONER

IN THE MATTER OF THE COMMISSION'S BIENNIAL ASSESSMENT, PURSUANT TO A.R.S. § 40-360.02.G, OF THE ADEQUACY OF EXISTING & PLANNED TRANSMISSION FACILITIES TO MEET ARIZONA'S ENERGY NEEDS IN A RELIABLE MANNER

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DECIS	SION	NO				

**ORDER** 

Open Meeting December 17, 2002 Phoenix, Arizona

BY THE COMMISSION:

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## FINDINGS OF FACT

- 1. The Utilities Division Staff ("Staff") of the Commission and its consultant, P Plus Corporation (PPC), have completed the second biennial assessment of Arizona's existing and planned transmission system. The Second Biennial Transmission Assessment, 2002-2011 ("Assessment" or "BTA") was filed with the Commission on December 6, 2002. The report was also posted on the Commission website at <a href="http://www.cc.state.az.us/utility/electric/biennial.htm">http://www.cc.state.az.us/utility/electric/biennial.htm</a> under Hot Topics.
- 2. Staff held two workshops to gather stakeholders' input. The workshops were held on July 30-31, 2002 and October 18, 2002. Industry input received from the workshops and subsequent written comments and correspondence has been incorporated into the Staff's report.
- 3. Staff's report addresses the adequacy and reliability of Arizona's existing and planned transmission system for the period 2002 2011 utilizing:
  - a. Ten-year plans and technical studies filed with the Commission by January 31, 2002 in accordance with A.R.S. § 40-360.02.A.

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- b. Plans and technical reports filed by Power Plants in accordance with A.R.S. § 40-360.02.B
- c. Other industry reports and technical studies germane and applicable to Arizona's transmission system.
- 4. Staff's Analysis concludes that the electric industry in Arizona has been very responsive to concerns raised in Staff's first BTA regarding the adequacy of Arizona's existing and planned transmission system to serve the state's energy needs in a reliable manner. For example:
  - a. Arizona has received national acclaim for its collaborative transmission planning process which is open to all stakeholders. The planning model is being proposed for a study addressing Arizona and California interstate transmission needs.
  - b. Some Merchant power plant developers are beginning to propose transmission improvements to resolve transmission barriers to the wholesale market.
  - c. Transmission providers have agreed to participate in a reliability-must-run (RMR) study process for each local transmission import constrained area with which they are interconnected.
  - d. Numerous new transmission projects have been announced and filed with the Commission since its first BTA.
- 5. Staff's Assessment further concludes that in general the existing and planned Arizona transmission system meets the load serving requirements of the state in a reliable manner. Several geographic areas do require and have planned transmission construction within the next ten-year period in order to continue serving local load in such a reliable manner. Mohave County was recently identified as a transmission import constrained area and studies have since commenced to determine available solutions. It is the only region for which transmission expansion has not been defined to reliably serve the local load projected for the area.
- 6. Staff's Assessment continues to raise concerns about the adequacy of the state's transmission system to reliably support the competitive wholesale market emerging in Arizona. This conclusion is supported by the following findings:
  - a. Competitive wholesale generators' access to local Arizona markets is limited by local transmission import constraints that results in local RMR generation requirements.
  - b. Planned Palo Verde transmission system additions fail to accommodate the full output of all new power plants interconnecting at the Palo Verde Hub. Two plant Decision No.

developers (Gila Bend Power Partners and TECO/Panda Gila River) have recently identified new transmission projects to help resolve anticipated curtailments and schedule restrictions.

- c. There is very little additional long-term firm transmission capacity available to export or import energy over Arizona's transmission system. Studies to investigate transmission additions required between Arizona and California are being organized.
- d. Some new power plants are being interconnected to Arizona's bulk transmission system via a single transmission line or tie rather than continuing Arizona's best engineering practices of multiple lines emanating from power plants.
- 7. Concerns outlined in Staff's conclusions listed above are not easily or quickly resolved. The public's best interest warrants effective and decisive remedies. Therefore; Staff's report recommends the following for Commission consideration and action:
  - a. Continue to support Staff's use of the "Guiding Principles for ACC Staff Determination of Electric System Adequacy and Reliability" to aid in its determination of adequacy and reliability of power plant and transmission line projects.
  - b. Request Staff to commence rule making proceedings to determine how:
    - Utility distribution companies (UDCs) should ensure sufficient transmission import capacity to reliably serve all loads in its service area without limiting access to more economical or less polluting remote generation and
    - New power plants should demonstrate sufficient transmission capacity exists to reliably and economically deliver their full output without use of remedial action schemes for single contingency (N-1) outages or displacing a priori generation at the interconnection.
  - c. Encourage transmission providers to continue to investigate and study, in a collaborative fashion, local area import constraints in accordance with the RMR Study Plan outlined in Section 7.2 of Staff's report.
  - d. Continue to encourage collaborative study activities between transmission providers and merchant plant developers for the purpose of:
    - Ensuring consumer benefits of generation additions, and cost-effective transmission enhancements and interconnections; and
    - Facilitating restructuring of the electric utility industry to reliably serve Arizona consumers at just and reasonable rates via a competitive wholesale market.

## CONCLUSIONS OF LAW

- 1. According to A.R.S. § 40-360.02.A, "Every person contemplating construction of any transmission line within the state during any ten year period shall file a ten year plan with the commission on or before January 31 of each year."
- 2. According to A.R.S. §40-360.02.G, "The plans shall be reviewed biennially by the commission and the commission shall issue a written decision regarding the adequacy of the existing and planned transmission facilities in this state to meet the present and future energy needs of this state in a reliable manner."
- 3. The Commission, having reviewed the Second Biennial Transmission Assessment 2002-2011, concludes that the assessment complies with A.R.S. §40-360.02.

Decision No.

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**ORDER** 

THEREFORE, IT IS ORDERED that the Second Biennial Transmission Assessment 2002 - 2011 is hereby issued as the Commission's biennial assessment in accordance with A.R.S. §40-360.02.G.

IT IS FURTHER ORDERED that Staff recommendations in Finding of Facts Nos. 7.a -7.d. are hereby adopted by the Commission.

IT IS FURTHER ORDERED that this Order shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION

**CHAIRMAN** COMMISSIONER COMMISSIONER IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Secretary of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this \_\_\_\_\_day of 2001. BRIAN C. McNEIL **Executive Secretary** DISSENT:

EGJ:jds

Decision No.